Rail Strategy 2; and, 3) Rail Strategy 3, which is terminal development using federal funding on both existing railroad properties and on adjacent property which is larger than that associated with Rail Strategy 2. The three basic alternative strategies are further defined below.

Rail Strategy 1 – Baseline

This strategy is unchanged from that presented in Technical Report No. 2. Properties that would be used for terminal development include current railroad rights-of-way (including Junction, Livernois, Vernor, and the Advanced Departure Yards), the former West Detroit Yard, and certain properties adjacent to Vernor Yard. Collectively, this area is referred to as the Limited Terminal District (see Figure S-6 for existing rail property boundaries, i.e., the area in red). The total size of this area is approximately 500 acres.

Railroads which currently own or have access to property in the Limited Terminal District (LTD) will continue to use and develop their terminals. Railroads which currently do not own or have access to property in the Limited Terminal District may develop terminals on properties which become available within the LTD. Not all Detroit market intermodal traffic can be accommodated within the Limited Terminal District and other terminals will be required within the Greater Detroit Area, so additional property outside the LTD will be used to accommodate intermodal traffic.

Total intermodal traffic handled at terminals in the Greater Detroit Area will increase from today's levels; intermodal truck trips into and out of the Impact Study Area currently total about 2,000 per day. It is estimated that there are 6,000 trips of all types of commercial trucks into and out of the study area today. The expected volumes of truck traffic in 2025 are shown on Table S-1.

Rail Strategy 1 would not include a buffer along its edges. Lonyo and Central would remain as they are today. There is no mitigation expected by the railroads of any potential nuisance/impact, i.e., no paving of the terminal surface, nor sound-attenuating walls.

Table S-1
Truck Traffic Forecasts (2025)

Gate	Average Daily Truck Movements		
	Rail Strategy 1	Rail Strategy 2	Rail Strategy 3
A	1,870	2,499	216
B	611	817	887
C	1,690	2,260	2,455
D	2,562	3,425	3,721
E	588	786	854
F/G	NA	NA	2,477
H/I	NA	NA	5,228
Total	7,321	9,787	15,838

Source: Arbor Vista Transportation

No federal funds will be used for terminal development in Rail Strategy 1. State funds may be used for terminal development within the Limited Terminal District. Private funds will be used for terminal development within the LTD. Total rail and truck terminal development and operating costs in the Greater Detroit Area are expected to be greater because of the greater travel distances overall with this limited terminal development compared to consolidation in a single terminal as proposed in Rail Strategy 3, discussed later.

Rail Strategy 2 – Limited Terminal District Development

This proposal has been modified from that presented earlier in that about 45 acres are added to serve Gate A activity (Figure S-8). John Kronk would remain a local street and not become part of the terminal. A sound wall would be added where there is a demonstrated need. Lonyo and Central would be grade separated from the rail lines in the terminal area. The truck-only road would accompany Rail Strategy 2.

Federal investment is expected in Rail Strategy 2, whereas none is anticipated in RS 1. Even this limited consolidation will lessen travel and increase capacity of the terminal thereby improving operations. Rail activity will increase by about one-third over the Baseline and so will truck traffic (Table S-1).

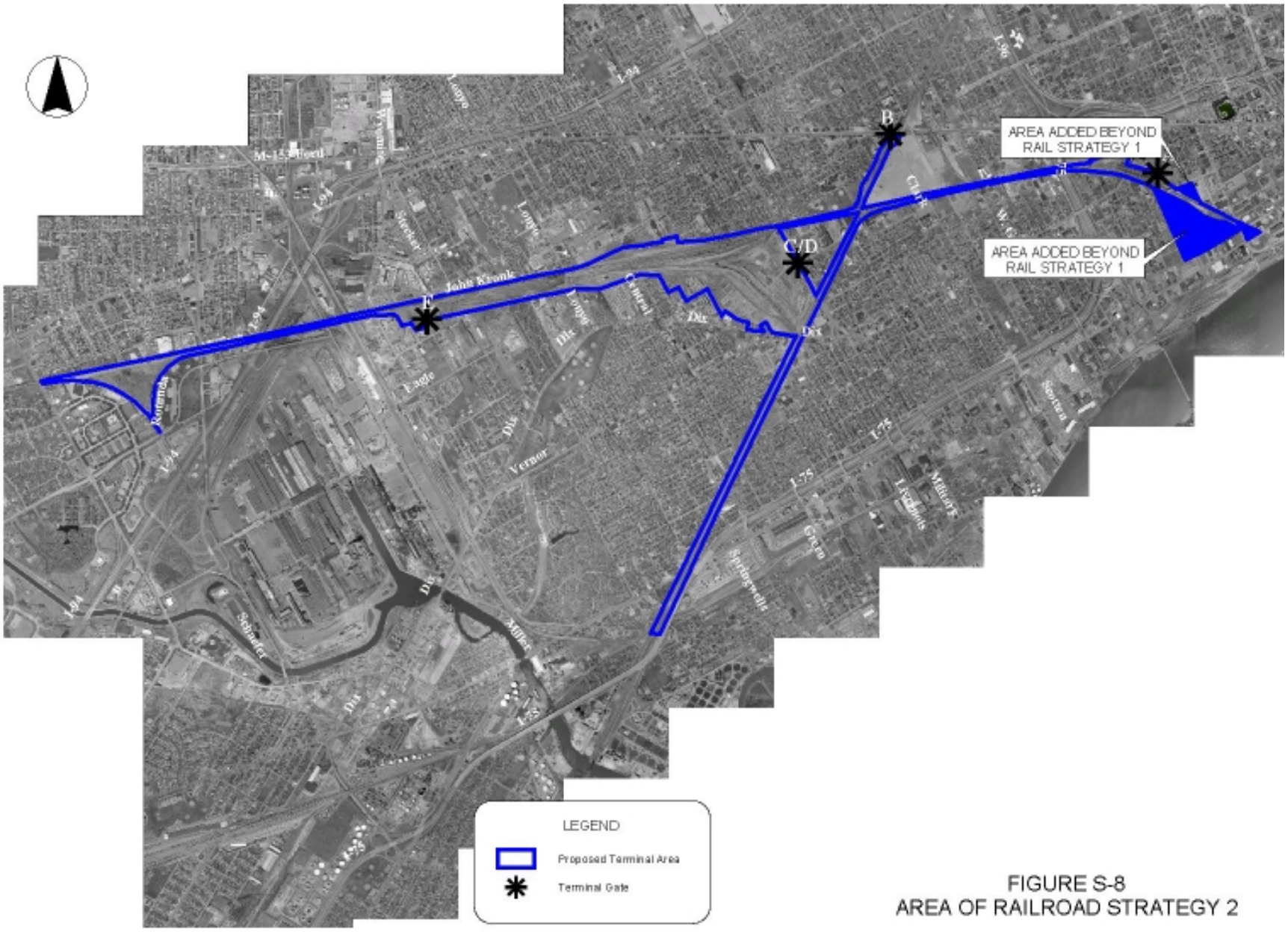

FIGURE S-8
AREA OF RAILROAD STRATEGY 2

Source: Wayne County and The Corradino Group of Michigan, Inc.

Rail Strategy 3 – Terminal District Development on Existing Railroad and Additional Adjacent Property

This option calls for expanding the Terminal District by several hundred acres. While about 675 acres of additional land had been identified earlier (i.e., area within dotted line on Figure S-9), more detailed analysis limits this possible expansion to about 340 acres, for a total of 840 acres in Rail Strategy 3 (i.e., green area on Figure S-9).

This terminal concept would be served by six gates instead of nine originally contemplated because Gates C and D are combined at the location of Gate C (i.e., Gate D is eliminated); Gates F and G are combined at Gate G (i.e., Gate F is eliminated); and, Gates H and I are combined at Gate I (i.e., Gate H is eliminated). Gates A, B, and E remain as they were proposed at the outset of this project. Daily truck traffic in 2025 is forecast to be almost 16,000 movements (ins/outs) reflecting the larger terminal and its increased efficiency and capacity (Table S-1).

Rail Strategy 3 will be a complex of intermodal terminal facilities operated by individual firms and using a number of different technologies, including Trailer on Flat Car (TOFC), Container on Flat Car (COFC), Double Stack (DST), RoadRailer, and Iron Highway as illustrated in Chapter 1. The facility would be designed to make it convertible from one technology to another. Each of the terminals would have a separate entrance from the street system. The terminal would be a large roadway and paved parking area bisected by rail tracks. Buildings will occupy a relatively small portion of the facility (refer to Figure S-2). The terminal will be well lighted and surrounded by a fence. A "buffer" road would be placed along the north perimeter of the terminal (Figure S-10). This new road would be included inside 120 feet of right-of-way which will include a significant amount (60 feet ±) of landscaped/bermed buffer to separate the adjacent area and the terminal or it could include a sound wall (Figure S-11). John Kronk Street would become an internal-terminal road. Lonyo and Central would be grade separated from the rail lines in the terminal area. And, the truck-only road would serve RS 3.

Evaluation of Roadway Alternatives

Roadway improvements cited on Table S-2 are proposed to accommodate Rail Strategies 2 and 3. The improvements associated with Rail Strategy 2 could cost between $121 and $131 million, if they were all built. Rail Strategy 3 roadway improvements could total $167 to $176 million, if a decision were made to construct all of them. As a No Action approach, Rail Strategy 1 will likely see no investment in roadway improvements.

Table S-2
Cost Estimate
Proposed Roadway Improvements[1]

Proposal		Associated Rail Strategy	Cost (millions of 2000 dollars)
Truck-Only Road	South Side	2 and 3	$42.6
	North Side	2 and 3	$51.8
Perimeter Road		3	$16.0
Lonyo	Option 1	3	$56.6
	Option 2	2	$34.6
Central	Option 1	3	$46.9
	Option 2	2	$39.3
I-94/Livernois Interchange		2 and 3	$4.2
Traffic Engineering Improvements		2 and 3	$0.7
Total	RS 1	$0.0 million	
	RS 2	$121.4 to $130.6 million	
	RS 3	$167.0 to $176.2 million	

Source: The Corradino Group of Michigan, Inc.

[1]Exclusive of right-of-way.

These roadway improvements are assessed for impacts in 17 areas that are most likely to be affected (Figure S-12). Eight criteria (listed alphabetically) are studied in the evaluation:

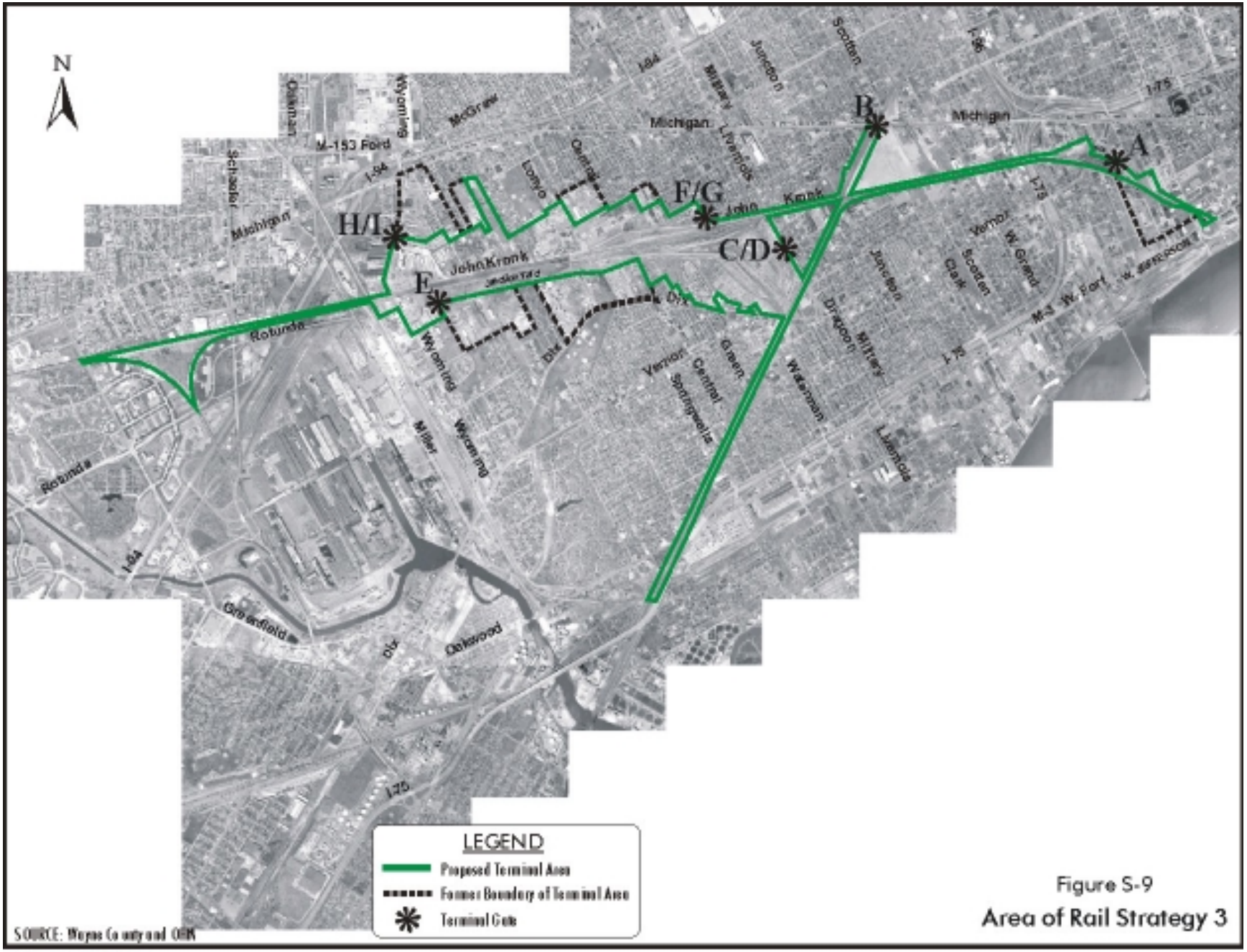

Figure S-9
Area of Rail Strategy 3

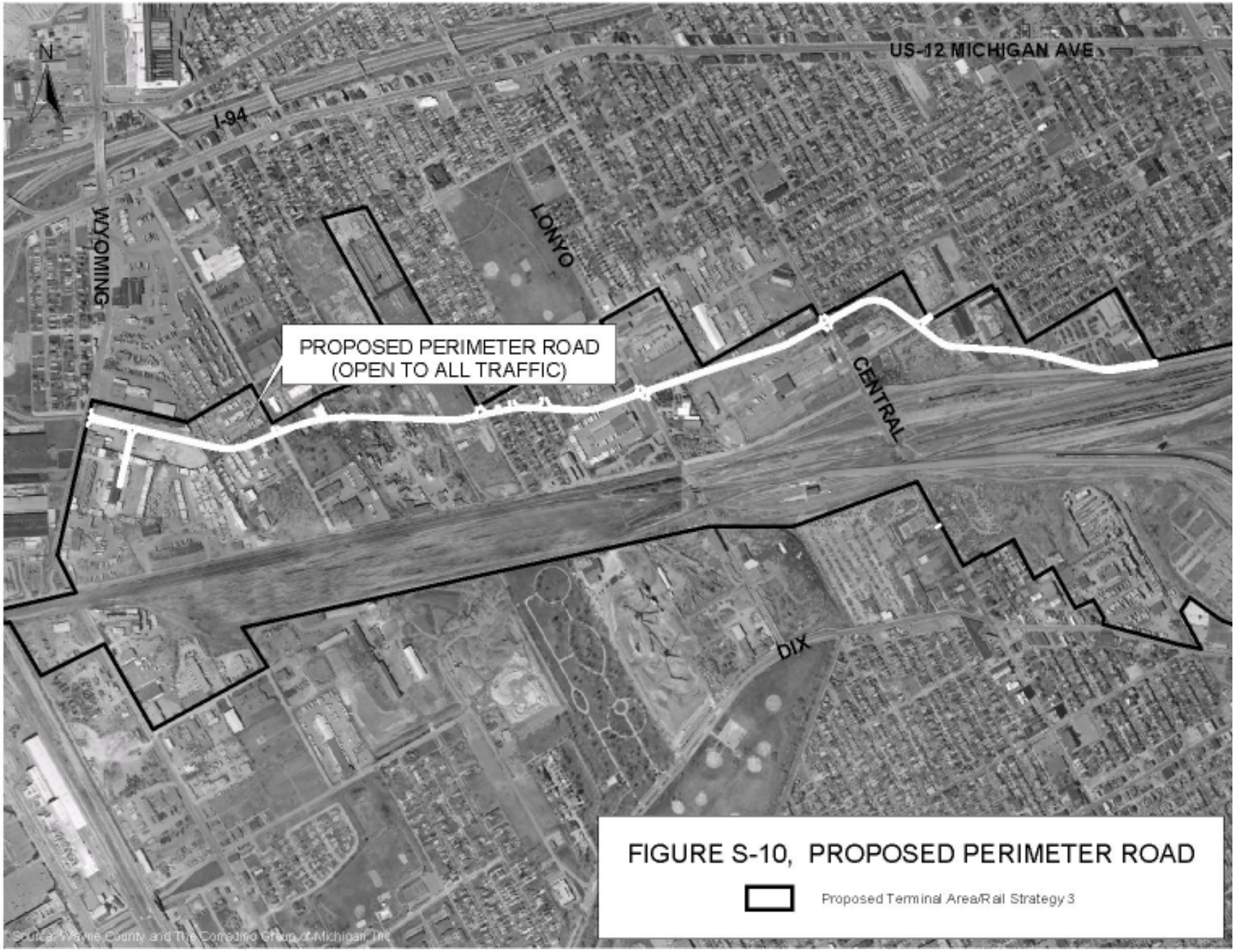

FIGURE S-10, PROPOSED PERIMETER ROAD

Proposed Terminal Area/Rail Strategy 3

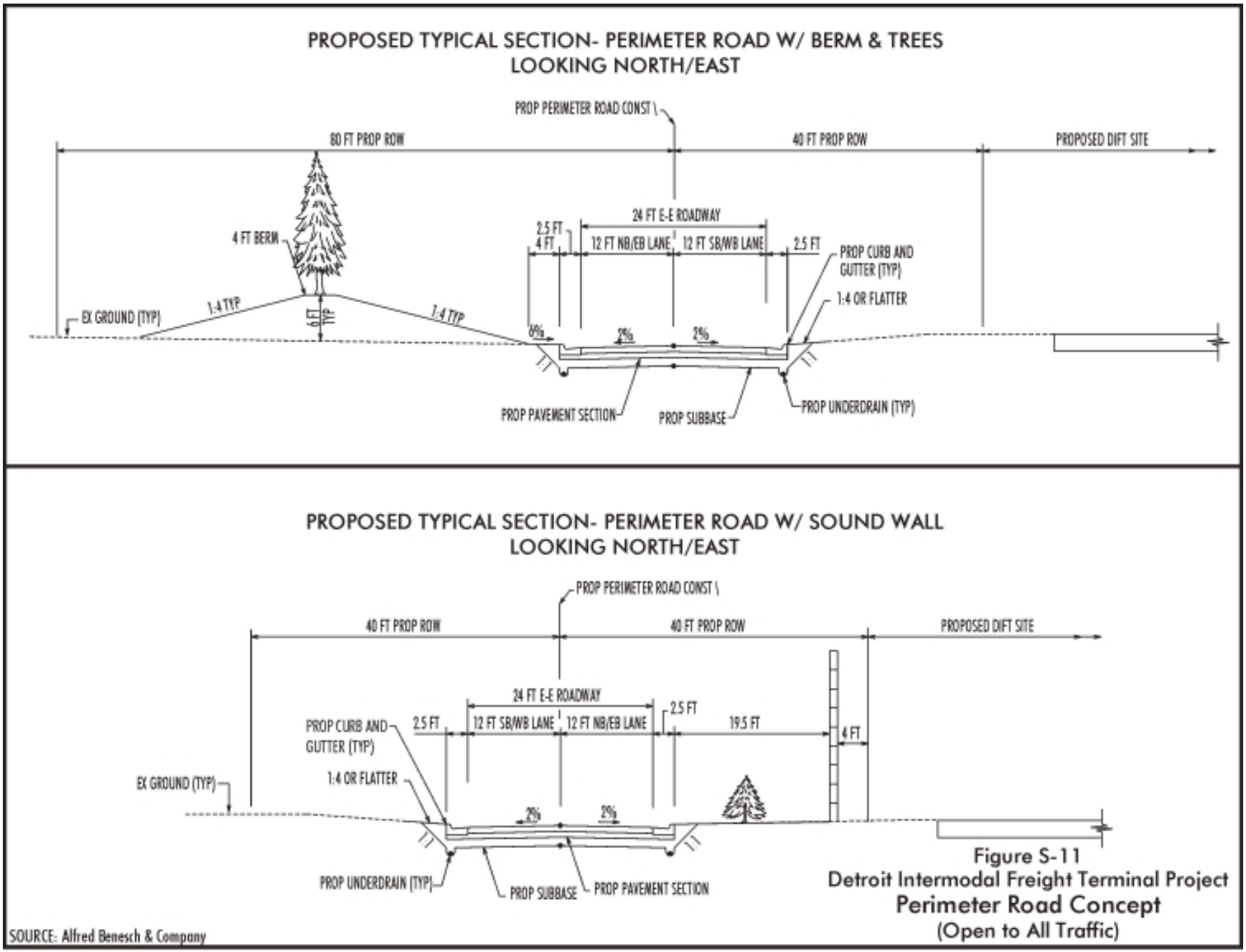

Figure S-11
Detroit Intermodal Freight Terminal Project
Perimeter Road Concept
(Open to All Traffic)

FIGURE S-12
ANALYSIS SEGMENTS
(SHOWN BY WHITE LINES)

- Air Quality
- Community Cohesion
- Displacements
- Engineering Difficulty
- Environmental Justice
- Historic Properties
- Noise
- Traffic Flow

The impact assessment developed for the 17 analysis segments reinforces the consultant's earlier position in Technical Report No. 2 that the roadway system with additional DIFT truck traffic, and the area served by it, are not expected to experience significant impacts. The most concern is with noise on Central, Livernois and Dragoon. But, similar noise is expected without terminal expansion. If, on the other hand, the terminal expands, the truck-only road is built, and all I-75-oriented trucks use it, then the volumes of traffic on Livernois and Dragoon between Vernor and I-75 will be reduced which will lessen the noise. And, while the truck-only road could impact about 100 to 115 sensitive receptors if it were built either north or south of the rail line, a wall is part of the plan to protect those receptors from unwanted noise.

Community cohesion and environmental justice impacts are not created in a disproportionate manner with Rail Strategies 2 and 3. As a matter of fact, several sensitive areas will be impacted more if Rail Strategy 1 without the truck-only road (TOR) were pursued because traffic would not be diverted from streets that otherwise would use the TOR. Likewise, developing the perimeter road with its buffer, plus grade separating Lonyo and Central from the rail line with Rail Strategies 2 and 3, will improve the area's cohesiveness. No action, i.e., RS 1, will have a more negative effect on the community. Finally, there are no direct cultural resource impacts expected with any road-related activities (i.e., construction or traffic). And, no air quality standards will be exceeded due to roadway activity.

Evaluation of Alternative Rail Strategies

Each of the rail strategies is examined by seven evaluation factors: engineering difficulty, displacements, community cohesion, environmental justice, historics, noise, and air quality.

Engineering Difficulty

Rail Strategy 1 will involve no federal investment and, while state government may be involved, this will be largely a private sector effort. Little will be done to physically improve the relationship between the surrounding area and the terminal. While intermodal truck operations in the area will grow from about 2,000 trucks a day to over 7,300 in 2025, no major improvements will be made to the surrounding roadways. The terminal itself will remain unpaved and it is unlikely that a sound attenuation wall will be built. There are no engineering difficulties associated with this no-action strategy.

Under Rail Strategy 2, land acquisition would be 45 acres near the Michigan Central Depot to accommodate the activity around Gate A. The terminal surface would be paved. This would involve relocating rail lines, removing existing "humps" in the yard, and establishing the proper drainage, paving and lighting. Developing the rail terminal itself is considered a straightforward engineering effort with few difficulties expected. The structures that must be constructed are office buildings and equipment maintenance facilities. While no buffer would be developed, a sound wall is possible where need is demonstrated, based upon the noise analysis presented later.

Under Rail Strategy 3, expansion of the terminal (approximately 340 acres) would occur, mostly to the north. The terminal surface would be paved and the road improvements discussed earlier would be made over time. A perimeter road would be added to connect Wyoming to John Kronk, and John Kronk from about Martin to Livernois would be rebuilt. The existing John Kronk Street between Wyoming and Martin would become an internal terminal road.

As with the other two alternatives, expanding the intermodal terminal is relatively straightforward with few engineering difficulties expected. The biggest challenge will be in the cleanup of potential contamination in the area of acquisition. To address this matter, a Project Area Contamination Survey (PCS) was conducted. It included field reconnaissance, interview of environmental agency representatives, review of historical land use controls, and review of federal and state environmental records. No reconnaissance inspections or interviews with property owners or occupants have been conducted. Additional assessment including on-site inspections and interviews would be conducted in future phases, if the project were to advance.

A total of 52 industrial/commercial parcels of land are identified for acquisition as part of Rail Strategy 3. Seventeen sites around the Michigan Central Depot would be acquired to accomplish Rail Strategy 2. Many of these sites have contamination impacts. The most common source of potential contamination appears to be leaking petroleum underground storage tanks. Several sites contain fill material of unknown origin and quantity. Other sources and types of contaminants that are likely to be encountered include metals, heavy petroleum compounds, PCBs, and solvents. These contaminants are commonly found at older industrial sites such as automobile salvage yards and metal recycling facilities.

In the last several years, cleanup of contaminated sites, particularly brownfields, has evolved to a risk-based approach which has allowed the redevelopment or reuse of environmental-impaired properties while still being protective of human health and the environment. For example, some 2,000 acres of the former Joliet Arsenal, a Federal Superfund Site in Illinois, are being redeveloped as an industrial park and an intermodal facility, not unlike the proposed DIFT. The Arsenal was impacted with explosives, volatile organic compounds, metals, and PCBs, etc. The remedial plan for the site included removal and off-site disposal of a limited quantity of contaminated soil, on-site bioremediation, capping of landfill areas, and natural attenuation and monitoring of groundwater plumes. Deed restrictions were also used to ensure that the site remains in industrial or commercial usage.

The goal of cleanup of any lands that would be acquired for expansion of the DIFT will be to protect human health and the environment by eliminating, reducing or controlling hazards posed by the site. It is anticipated that this goal can be met through a combination of actions such as those used at the Joliet Arsenal.

Displacements

For Rail Strategy 1, there would be no displacements. Rail Strategy 2 would require the acquisition of about 45 acres. This would affect no dwelling units but 13 businesses on 17 parcels of land around the Michigan Central Depot would be acquired. This is higher than thought earlier as potential acquisition around the MCD has been added.

Rail Strategy 3 does not include the area around the MCD and focuses expansion largely to the north of John Kronk with some expansion south, near Wyoming. Acquisition of this area would include a parcel defined by John Kronk, St. John's Avenue, Cabot and Trenton which would involve 74 dwelling units (56 single-family and 18 multi-family) (Figure S-13).[1] Seventy-six active businesses would be affected by acquisition of 52 parcels of land in RS 3.

Cultural Resources

Acquisition of property for terminal expansion will involve no parks. Likewise, terminal expansion is not expected to affect structures of historic significance. Archaeological potential for the area affects pre-sanitary sewer, first-generation development dating back to about 1875. If the terminal were to be expanded, field work including

[1]It is noted that the number of single-family dwelling units in this area was listed at 63 in Technical Report 2. The correct number is 56.

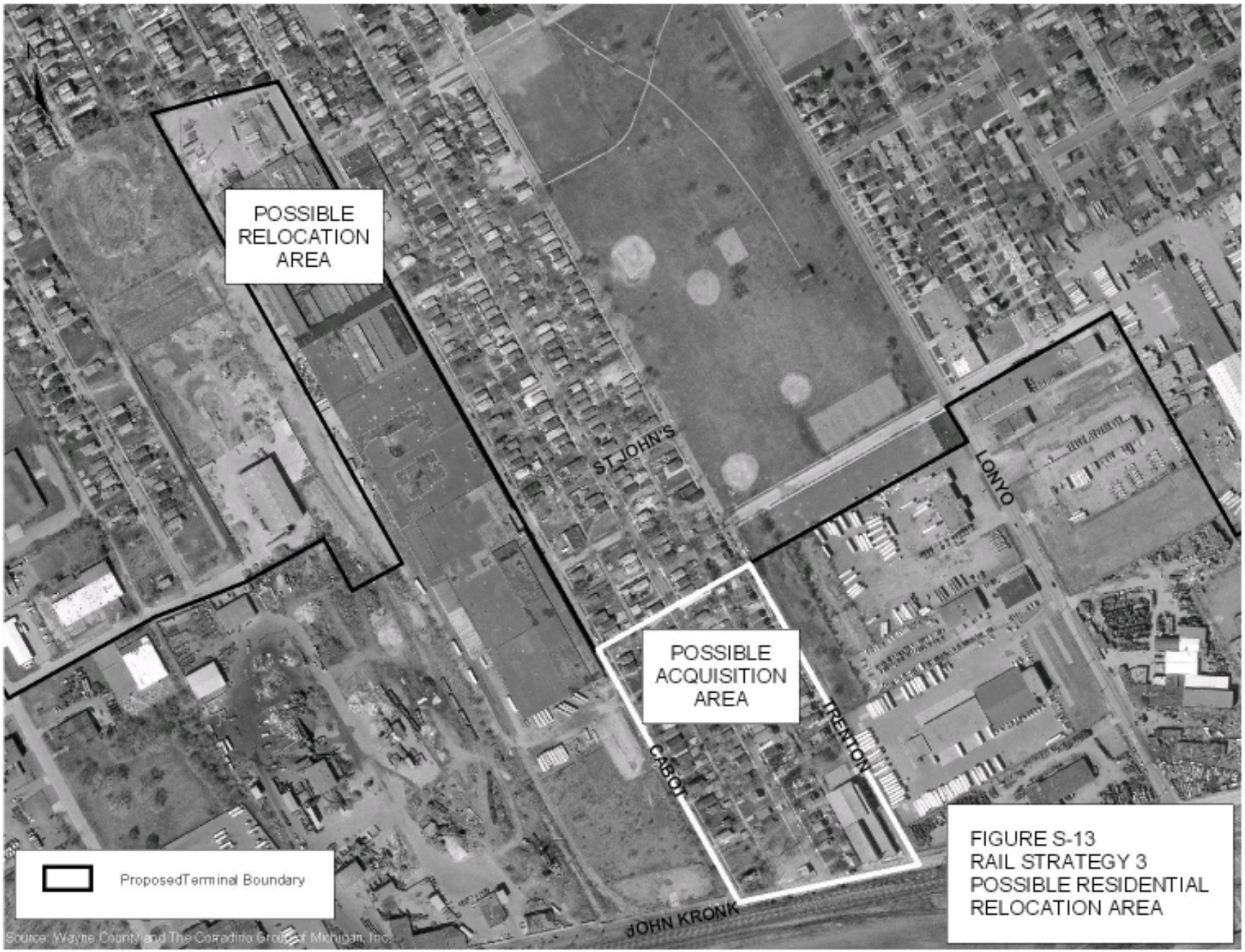

FIGURE S-13
RAIL STRATEGY 3
POSSIBLE RESIDENTIAL
RELOCATION AREA